Nuclear Cross Sections Analysis and R-matrix tools - Minischool
Surrey Ion Beam Centre and Department of Physics
University of Surrey, Thursday May 9th – Friday May 10th, 2013

Thursday May 9th 2013 - Room 30BB03

09.00 - 09.10 Arrival and Welcome: Dr Chris Jeynes (University of Surrey)
09.10 - 10.20 *What is the R-matrix?* Prof. Jeff Tostevin (University of Surrey)

10.20 - 11.00 Coffee break

11.00 - 12.00 *Leverhulme Lecture:*
Part I: Nuclear data for Ion Beam Analysis (IBA)
Part II: Evaluation of charged particles low energy reaction cross-sections
Prof. Alexander Gurbich (Surrey/Obninsk)
12.00 - 13.00 *Astrophysics needs and tools: Overview of AZURE*
Dr Ed Simpson (University of Surrey)

13.00 - 14.00 Lunch/discussions

14.00 - 18.00 *Hands-on session* Computer Laboratory (10BC03)

Friday May 10th 2013 - Room 30BB03

09.00 - 09.30 *Nuclear reaction cross-section measurement capability in the UK: The Surrey Facility* Dr Julien Colaux (University of Surrey)
09.30 - 10.30 *Leverhulme Lecture:*
Similarities between nuclear data for IBA and Astrophysics
Prof. Alexander Gurbich (Surrey/Obninsk)

10.30 - 11.30 Tour of the Surrey Ion Beam Centre and Coffee Break

11.30 - 13.00 *Topical applications*
11.30 - 12.00 *The Application of R-Matrix analysis to experimental data: 1 - Resonance Properties*
Alex Murphy (University of Edinburgh)
12.00 - 12.30 *The Application of R-Matrix analysis to experimental data: 2 - Reaction Rates*
Alison Laird (University of York)
12.30 - 13.00 *Evaluation of non-Rutherford α-elastic scattering from Si*
Chris Jeynes / Alex Gurbich

13.00 - 14.00 Lunch/discussion

14.00 - 16.00 *Hands-on session (optional)* Computer Laboratory (10BC03)
16.00 *Formal close*
(computing lab remains open with Surrey staff - refreshments and depart)